

CLAIMS

The invention is claimed as follows:

1. A battery pack comprising:
5 a battery block that houses one or more batteries in a battery package;
a circuit block housing a circuit in a circuit package, the circuit having a measurement function associated with at least one of a use condition of the batteries, a measurement function associated with performance of the batteries, and a protection function to protect the batteries; and
10 an outer case capable of fitting in and housing the battery block and the circuit block, wherein the battery block and the circuit block can be independently removed and replaced from the outer case.
2. The battery pack according to claim 1, wherein at least one of the
15 battery package and the circuit package includes a hermetic package.
3. The battery pack according to claim 2, wherein the hermetic package has a hermetic structure that is formed by fitting together an open top lower package and an upper package having a groove corresponding to an opening of the lower
20 package by press fitting.
4. The battery pack according to claim 1, wherein the battery block has a connection terminal on a side facing the circuit block and the circuit block has a connection terminal on a side facing the battery block.
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5. The battery pack according to claim 4, wherein the connection terminals are insert molded in the battery package and the circuit package.
6. The battery pack according to claim 4, wherein the connection terminal
30 and a tab of the battery have branched parts on each edge and are connected by engaging the branched parts of the connection terminal and the branched parts of the tab of the battery.

7. A battery pack comprising:

an outer case for housing one or more batteries and a circuit having at least one of a measurement function associated with a use condition of the batteries, a measurement function associated with performance of the batteries and a protection function to protect the batteries,

wherein inside of the outer case is completely separated into two chambers by a partition wall and the batteries and the circuit are separately housed in the two chambers, respectively.

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8. The battery pack according to claim 7, wherein the outer case comprises:

an open top lower case with an inside that is sectioned into a plurality of chambers by a lower partition wall; and

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an upper case having an upper partition wall with a groove corresponding to the lower partition wall such that the two chambers have hermetic structures by formation of the partition wall by press fitting the lower partition wall into the groove of the upper partition wall and by forming a joint at an opening of the lower case.

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9. The battery pack according to claim 7, wherein the outer case is provided through at least one of the lower partition wall and the upper partition wall, and the outer case comprises tabs to electrically connect the batteries and the circuit.

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10. The battery pack according to claim 7, wherein a tab of the outer case and a tab of the battery have branched parts on each edge and are connected by engaging the branched parts of the tab of the outer case and the branched parts of the tab of the battery.